CLAIMS

What is claimed is:

1. A method of fault recovery by a switch in a local area network, the method comprising:
detecting a link failure at a port of the switch; and
clearing a MAC address table of the switch in response to the link failure detection.

2. The method of claim 1, wherein clearing the address table causes a discovery process to fill the table to begin immediately.

3. The method of claim 1, further comprising:
momentarily dropping a link on another port of the switch.

4. The method of claim 3, wherein momentarily dropping the link on the other port causes propagation of the link failure to a next switch.

5. The method of claim 1, wherein the address table is cleared by overwriting each entry in the table with a template from a register.

6. The method of claim 1, wherein the address table is cleared by momentarily turning off power within the switch.

7. The method of claim 3, wherein the link is momentarily dropped for a length of time sufficient for a next switch to detect the link drop.

8. The method of claim 7, wherein the length of time is no more than fifty milliseconds.

9. The method of claim 7, wherein the length of time is under ten milliseconds.

10. A network apparatus comprising:
a MAC address table; and
a plurality of ports wherein at least one port is configured to implement a link-loss-learn protocol.

11. The apparatus of claim 10, wherein the link-loss-learn protocol comprises, upon detecting a link failure at the port, flushing the MAC address table so as to immediately begin a discovery process.

12. The apparatus of claim 11, wherein the link-loss-learn protocol further comprises, upon detecting the link failure at the port, momentarily dropping links on other ports of the apparatus that are configured to implement the link-loss-learn protocol so as to propagate the link failure.

13. The apparatus of claim 12, wherein the apparatus comprises a multi-port Ethernet switch.

14. A network comprising:
a plurality of Ethernet switches in a redundant topology,
wherein at least one switch is configured to implement a link-loss-learn protocol for rapid fault recovery.

15. The network of claim 14, wherein the link-loss-learn protocol comprises, upon detecting a link failure at a port of the switch, flushing a MAC address table of the switch.

16. The network of claim 15, wherein the link-loss-learn protocol further comprises, upon detecting the link failure at the port, momentarily dropping links on other ports of the switch that are configured to implement the link-loss-learn protocol.